

**TOTAL ENVIRONMENTAL
RESTORATION CONTRACTS**

A SUCCESS STORY



SILRESIM SUPERFUND SITE

Silresim, a chemical waste reclamation facility, operated from 1971 to 1977 on a 4.5-acre site in Lowell, Massachusetts. The facility recycled some chemicals and consolidated waste chemicals for off-site disposal. As a result of those operations, seven acres of soil and the groundwater under approximately 16 acres were contaminated. The Record of Decision specified the following:

- Treatment of soil using in situ soil vapor extraction (SVE). Soil contaminated with non-volatile organic compounds will be excavated, stabilized, and disposed of on the property. Then the property would be covered with a cap in compliance with the Resource Conservation and Recovery Act.

TERC WORKS



*Groundwater
treatment facility.*

- Treatment of groundwater to raise the quality to drinking water standards using pretreatment for phase separation and metals removal. Follow-on treatment includes air stripping, carbon adsorption, thermal oxidation of the gas stream, and disposal of the treated groundwater to the Lowell sewer system.

Cleanup of the site involved interrelated phases:

- Construction and operation of a groundwater treatment facility (GWTF), a system with 25 extraction wells and a treatment process housed in a pre-engineered building, for 12 to 18 months to lower the groundwater table prior to installation of the SVE system.
- Operation of the SVE system for a period to lower volatile organic compound levels in surface soils before beginning the

Revised design
and specifications
saved more than
\$1 million.

excavation/stabilization phase of the project. Both the soil and groundwater treatment units were to be located in the same building.

Rather than try to manage multiple contractors working on the different project phases on such a small site, the Corps decided to use a TERC

contractor. When the key decision was made to use the TERC just awarded by the New England district, design of the GWTF was 75 percent complete.

USACE quickly issued an initial TERC task order for development of a work plan, preparation of other preliminary plans, design of the building foundation, and preparation of the procurement package for the GWTF building. Less than 5 months after issuing the request for proposal, USACE issued the task order for completion of the design and construction of the GWTF. The treatment plant began operation 15 months later.

Treatment plant
began
operations
within 15
months.

Not only did the use of TERC enable the contractor to begin operations far more quickly than would have been possible under a fixed-price type of contract, but it also enabled the following:

- Initiation of construction of the GWTF foundation before the contract amount was fully negotiated.
- Sequential funding of the project.
- Implementation of several significant changes without impacting progress.
- Negotiation of the operations and maintenance portion of the project during construction.



NEW ENGLAND DISTRICT

POINT OF CONTACT —

MARK OTIS

(617) 647-8895